



**The Threat of Filter Bubbles on Democratic Values**

Qualitative Research Exploring the Effects Filter Bubbles Have on Teenagers'

Democratic Values of Freedom and Consensus

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# THE THREAT OF FILTER BUBBLES ON DEMOCRATIC VALUES

## Abstract

**Aim:** Many experts worry about the effects of filter bubbles on our democratic values.

However, while numerous studies explored the effects of filter bubbles on adult internet users, research regarding the effects of filter bubbles on teenagers is non-existent. This qualitative empirical research examines if and how teenagers' filter bubbles and their click behavior form a threat to democratic values of consensus and freedom. **Method:** This study conducted both semi-structured individual interviews and focus groups with teenagers in Amsterdam (aged 12-15). In total 7 focus groups with 2 to 3 teenagers per session took place. In addition, 6 individual interviews were carried out. **Results:** This study indicated that filter bubbles could have a negative influence on the democratic value of consensus. However, it also indicated that filter bubbles could have both a positive and a negative influence on the democratic value of freedom. An interaction between personal, social and algorithmic factors play a role here. The findings were confirmed by the literature. **Conclusion:** It is a given that filter bubbles are present in today's age. Our task, as educators and pedagogues, lies in making youth resilient to the negative effects of filter bubbles and allowing them to benefit from the positive effects. As we learn more and more about the phenomenon, it is desirable to look at the course we want to take to achieve this goal.

## Samenvatting

**Doelstelling:** Veel experts maken zich zorgen over de effecten van filterbubbels op onze democratische waarden. Terwijl veel onderzoek is gedaan naar de effecten van filterbubbels op volwassen internetgebruikers, is er geen onderzoek gedaan naar de effecten van filterbubbels op tieners. Dit kwalitatieve empirische onderzoek gaat na of en hoe de filterbubbels van tieners en hun klikgedrag een bedreiging kunnen voor de democratische waarden 'consensus' en 'vrijheid'. **Methode:** In deze studie werden zowel semi-gestructureerde individuele interviews als focusgroepen met tieners (12-15 jaar) afgenomen.

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Deze vonden plaats in Amsterdam. In totaal waren er 7 focusgroepen met 2 tot 3 tieners per sessie. Daarnaast werden 6 individuele interviews afgenomen. **Resultaten:** Dit onderzoek wees uit dat filterbubbels een negatieve invloed konden hebben op consensus vorming. Er werd echter ook aangetoond dat filterbubbels zowel een positieve als een negatieve invloed konden hebben op vrijheid als democratische waarde. Een interactie tussen persoonlijke, sociale en algoritmische factoren spelen hierbij een rol. De bevindingen werden bevestigd door de literatuur. **Conclusie:** Het is een gegeven dat filterbubbels in het huidige tijdperk aanwezig zijn. Onze taak als opvoeders en pedagogen is daarom om jongeren weerbaar te maken tegen de negatieve effecten van filterbubbels en hen te laten profiteren van de positieve effecten. Naarmate we meer over het fenomeen te weten komen, is het wenselijk na te gaan welke koers we willen varen om dit doel te bereiken.

### **The Threat of Filter Bubbles on Democratic Values**

At the end of the 20<sup>th</sup> century and at the beginning of the 21<sup>st</sup> century people argued that digitalization made a positive contribution to the stimulation of democratic values. For example, the access to online platforms made it easier for individuals to get in touch with each other on an equal basis and it allowed internet users more freedom. The latter is because the internet made access to information easier (Hanzenberg, 2020).

However, after the economic crisis in 2008 investors and financial institutions looked for ways to compensate for their lost investments. This led to tech companies advertising and selling data and using the algorithm to hold the attention of internet users for as long as possible (Hanzenberg, 2020). The algorithm responded to the tendency of individuals to seek information confirming their existing beliefs, attitudes, identity or interests. This resulted in both the influence of the algorithm and the preferences of the individual reinforcing each other (Dahlgren, 2021). For this reason critics warned for the emergence of filter bubbles, which represent the information each internet user receives, based on a selection that is similar to their pre-existing attitudes (Geschke et al., 2019). Metaphorically this can be formulated as ‘a unique universe of information for each of us’ (Pariser, 2011, in Dahlgren, 2021). Because filter bubbles consist of pre-selected content, the exposure to information that challenges one’s attitude is minimalized (Pariser, 2011 in Geschke et al., 2019).

Many experts worry about the effects of filter bubbles on our democratic values for different reasons (e.g. Viķe-Freiberga et al., (2013), the Council of Europe (2012) and the High Level Expert Group on Media Diversity and Pluralism, in Zuiderveen Borgesius et al. (2016)). For example, the optimalization of the algorithm could limit the agency of internet users to shape their own bubbles (Swart, 2021). This is due to the fact that algorithms make automated decisions on what information to impose on the internet user and what to filter out. This could undermine the democratic value of freedom. Another example is the contributing

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of personal and algorithmic factors to a personalized stream of information, which can cause each internet user to perceive different or contrasting information. According to Pariser (2011, p. 5) a democracy requires a reliance on shared facts (i.e. consensus). When internet users have parallel filter bubbles, consensus building becomes difficult. This, in turn, could lead to polarization (i.e. the division of a community into different groups, each reaching consensus. Proskurnikov et al. (2015)). In an extreme form this could lead to societal conflict (Dimaggio et al., 1996, in Schulten et al., 2020).

It is likely that the negative effects of filter bubbles on our democratic values will affect a lot of young people. According to Swart (2021), this is because people under the age of 25 mostly depend on personalized media for news, such as Facebook, YouTube and Instagram. The negative influence on their democratic values is problematic because within the Dutch education system, much value is placed on civic education, focused on preparing youth to participate in a democratic society (SLO, n.d.). However, while numerous studies explored the effects of filter bubbles on adult internet users, research regarding the effects of filter bubbles on teenagers is non-existent. Therefore, this study will explore if teenagers' filter bubbles and their click behavior form a threat to democratic values and if so, in what way. This study is part of the Filter Bubble project in which UNION, Mira Media and Utrecht University collaborate. The goal of this project is to build an application that will serve as an educational tool for Dutch secondary schools, with the aim of helping students to become aware of the filter bubble they are in. In this paper I will further explore the phenomenon of filter bubbles and the negative implications related to it.

### **Theoretical framework**

#### **Filter Bubbles**

The concept of filter bubbles was first introduced by Eli Pariser. According to him, a filter bubble is an algorithmic personalization of information (Pariser, 2015, in Bruns, 2019).

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The concept refers to a metaphorical bubble, in which internet users are surrounded by content similar to their interests or perspectives (Kruikemeier 2020). Thus, internet users are likely to process information using their own filter bubble as a framework. This allows different realities in society to coexist in parallel. Because every bubble consists of a filtered stream of information, there is a danger that important information for developing a realistic and nuanced view of the world gets filtered away due to a lack of likeability (Nagulendra & Vassileva, 2014).

Another danger is that internet users are likely to find themselves in a so called 'echo-chamber'. This is an online phenomenon that develops over time, where the internet user is constantly exposed to confirming opinions (Flaxman, Goel & Rao, 2016). Consequently, this makes them unaware of other realities and different points of view (Nagulendra & Vassileva, 2014). This phenomenon arises when filter bubbles of interacting individuals strongly overlap (Geschke et al., 2019). In some cases, this causes the false consensus effect to occur, in which an individual tends to think that their ideas are more widely spread than they actually are (Munson et al., 2013). In other words, the individual gets the perception that their opinion meets the normal.

Pariser ascribes the existence of filter bubbles to algorithmic processes. However, there is an ongoing debate about this. On the one side, there is a group of researchers that agree with Pariser, whereas on the other side there is a group of researchers that ascribe the existence of filter bubbles to human psychological processes. These processes are referred to as the selective exposure theory. This theory states that individuals favor to perceive information that matches what they already know and believe, while they tend to avoid information that does not match with these frameworks (Munson et al., 2013). In addition, selective exposure can also include the tendency of individuals to click on content that makes

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them curious, due to its novel or surprising elements (Lowenstein 1994, in Geschke et al., 2019).

More nuanced voices are also represented in the debate on how filter bubbles emerge. For example, the Triple-Filter-Bubble model of Geschke et al. (2019) makes a distinction between individual, social and technological filters. Individual filters refer to processes of selective exposure (Geschke et al., 2019). Social filters refer to the tendency of individuals to form friendships and social network structures with whom they share sociodemographic, behavioral and intrapersonal characteristics (McPherson et al., 2001). Lastly, technological filters refer to the algorithmic processes that provide internet users with personalized information (Geschke et al., 2019). Because relatively limited research has been conducted on filter bubbles and their effects, this explorative study assumes that filter bubbles emerge from the influence of algorithmic, personal and social factors.

### **Filter Bubbles and Democracy**

The conceptualizing of the term democracy is complex, because there are different types of democracy that value different principles. Therefore, in this study I will limit myself to the basic values that are underlying the Dutch democracy. As mentioned before, The Netherlands is a democratic constitutional state, which, in short, means that citizens have the right to vote for the parliament and that all citizens have the obligation to abide by the law. Important values that are underlying the Dutch democratic constitutional state are the principle of consensus (Michels, 2007), the principle of equality and the principle of freedom (Peters, Van Stipdonk & Castenmiller, 2014). As described in the introduction, filter bubbles can under, certain conditions, have a negative impact on democratic values of freedom and consensus.

**Freedom.** As stated in the selective exposure theory, individuals have the tendency to click on content that matches their preferences and opinions. In addition, they usually avoid

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content that does not match with these preferences (Munson et al., 2013, p. 1). This implies that they have a certain degree of freedom, because they autonomously decide what to click on and what to avoid. In other words, they have the freedom to shape their own bubble. In this way filter bubbles have a positive impact on the democratic value of freedom. However, filter bubbles could also have a negative impact on the freedom of internet users.

Firstly, internet users can be nudged to click on certain content. Nudging is a psychological motivation technique, through which people are stimulated to express certain behavior in a subtle matter (Thaler & Sunstein, 2008). Social media platforms make use of different nudging techniques. An example is the algorithm that recommends selected content to internet users. Another technique is the usage of sensational, misleading and/or emotional headlines (Aaldering et al., 2020). This has a negative impact on internet users' freedom of choice, because of the subtlety by which internet users are influenced to click on content.

Secondly, De Vries (2010) states that internet users are not only nudged towards content that is in line with their own preferences, but also towards content that does not necessarily fit with who they are and what they stand for. According to him, the experience of personal identity is mediated by categories to which internet users are assigned by the algorithm. This is due to the fact that these categories are not always based on our already existing preferences. They can also be based on feedback provided by other users' interaction with the system (Milano et al., 2020). Thus, with his claim, De Vries implies that algorithms have an influence on the identities of internet users, which limits their freedom to form their own identity.

Finally, due to interaction with their social network, internet users can be nudged to content not matching their preferences. For example, factors such as social pressure or social influence could play a role in this (Dahlgren, 2021). These arguments illustrate how algorithmic, personal and social factors, can limit internet users' freedom and control to shape



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their own bubble (Bozdag & Van den Hoven, 2015). Therefore, filter bubbles could also have a negative influence on the democratic value of freedom.

**Consensus.** It is not always true that filter bubbles have a negative impact on consensus building. In fact, people with overlapping filter bubbles do share consensus on parts where their bubbles overlap. Nevertheless, the negative impact of filter bubbles on the democratic value of consensus is not insignificant.

Firstly, the presence of filter bubbles allows different perceptions of reality to coexist in parallel. In her book about dominance El-Kaddouri (2020) describes that the existence of different realities serve as a breeding ground for phenomena like fake news, alternative facts (e.g. conspiracy theories). Many of the spreaders of fake news also make use of clickbait. It often uses sensational, misleading and/or emotional headlines (Aaldering et al., 2020). The Cambridge Dictionary (n.d.) conceptualizes clickbait as follows: ‘Articles, photographs, etc. on the internet that are intended to attract attention and encourage people to click on particular websites’. Because reliable news sources also make use of clickbait, the distinction between real and fake news is even more difficult for individuals to detect. Therefore, it is more likely that internet users come to believe in such alternative truths on a large scale. This makes it harder to reach consensus.

Secondly, studies of Stinchombe (2010, in Seargeant & Tagg, 2010) and Vinokur & Burnstein (1978, in Geschke et al., 2019) state that the constant confirmation of certain ideologies, which is likely to occur in echo-chambers, is a threat for consensus building. In addition, Sunstein (2001, 2009 in Geschke et al., 2019) claims that a society falling apart into distinct echo-chambers equals a lack of society-wide consensus.

Finally, when internet users interact on privatized digital platforms, algorithmic market forces, that aim to increase the profits of those platforms, quickly point them to topics with high entertainment value or to topics that give the most reason to react and judge others

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(i.e. arousing content, Hazenberg, 2020) Bubbles containing that kind of content on a large scale could radicalize users' opinions (Hazenberg, 2020). When different radical opinions are prevalent in society, it becomes more difficult to reach consensus. These arguments illustrate how filter bubbles could have a negative influence on the democratic value of consensus.

### **Current study**

The theoretical framework central to this study is primarily based on literature regarding adults. The study by Swart (2021) forms an exception to it, because she explores how adolescents (aged 16-26) make sense of, feel about, and engage with algorithmic news curation on social media and when such everyday experiences contribute to their algorithmic literacy. To this day, studies related to teenagers and filter bubbles are non-existent. In addition, in many studies, a one-sided point of view is taken regarding the emergence of filter bubbles. For example, on the one hand there are studies that only emphasize algorithmic factors as the cause of their emergence (e.g. Nagulendra & Vassileva, 2014), while on the other hand there are studies that only emphasize selective exposure as a cause (e.g. Munson et al., 2013). Because there is no consensus in the academic world on how filter bubbles emerge, this study adopts the more nuanced perspective of Geschke et al. (2019), that takes algorithmic, personal and social factors.

For the above reasons qualitative empirical research will be conducted in this study. The following question will be explored: *Do teenagers' filter bubbles and their click behavior form a threat to democratic values and if so, how?* Click behavior here refers to the content that teenagers consciously click on based on their own considerations, while algorithmic influences are minimized. We have formulated the following sub-questions: 1) Does teenagers' click behavior form a threat to the democratic value of freedom and if so, how? 2) Do teenagers' filter bubbles form a threat to the democratic value of freedom and if so, how? 3) Does teenagers' click behavior form a threat to the democratic value of consensus and if so,

how? 4) Do teenagers' filter bubbles form a threat to the democratic value of consensus and if so, how?

### **Method**

#### **Procedure**

To increase the reliability of the study we conducted multiple qualitative methods. We used both semi-structured individual interviews and focus groups. Prior to the focus groups and the interviews the teenagers' parents received a consent letter where the purpose, procedure, and content of the interviews were explained (Appendix 1). Both the focus groups and the interviews took place once and were conducted in April and May 2021. They lasted between 45 and 50 minutes. The conversations took place at the teenagers' schools and all of the interviews were recorded.

**Focus Groups.** In total, we conducted 7 focus groups with 2 to 3 teenagers per session. A focus group approach involves interviewing a group of participants on a specific topic in which researchers use discussion between the participants for data collection (Morgan, 2008, in Boeije, 2019). We used this approach because the findings more accurately reflect social reality than data collected in a non-social setting (Boeije, 2019) and because it makes consensus and disagreement on certain themes more transparent (Evers & De Boer, 2012).

**Individual Interviews.** We carried out 6 individual interviews, with the aim of forming a deeper understanding about teenagers' experiences with filter bubbles. We specifically asked teachers to select students with outspoken opinions with regard to societal topics. We assumed this specific group of teenagers could tell us more about how their filter bubble influenced their opinion.

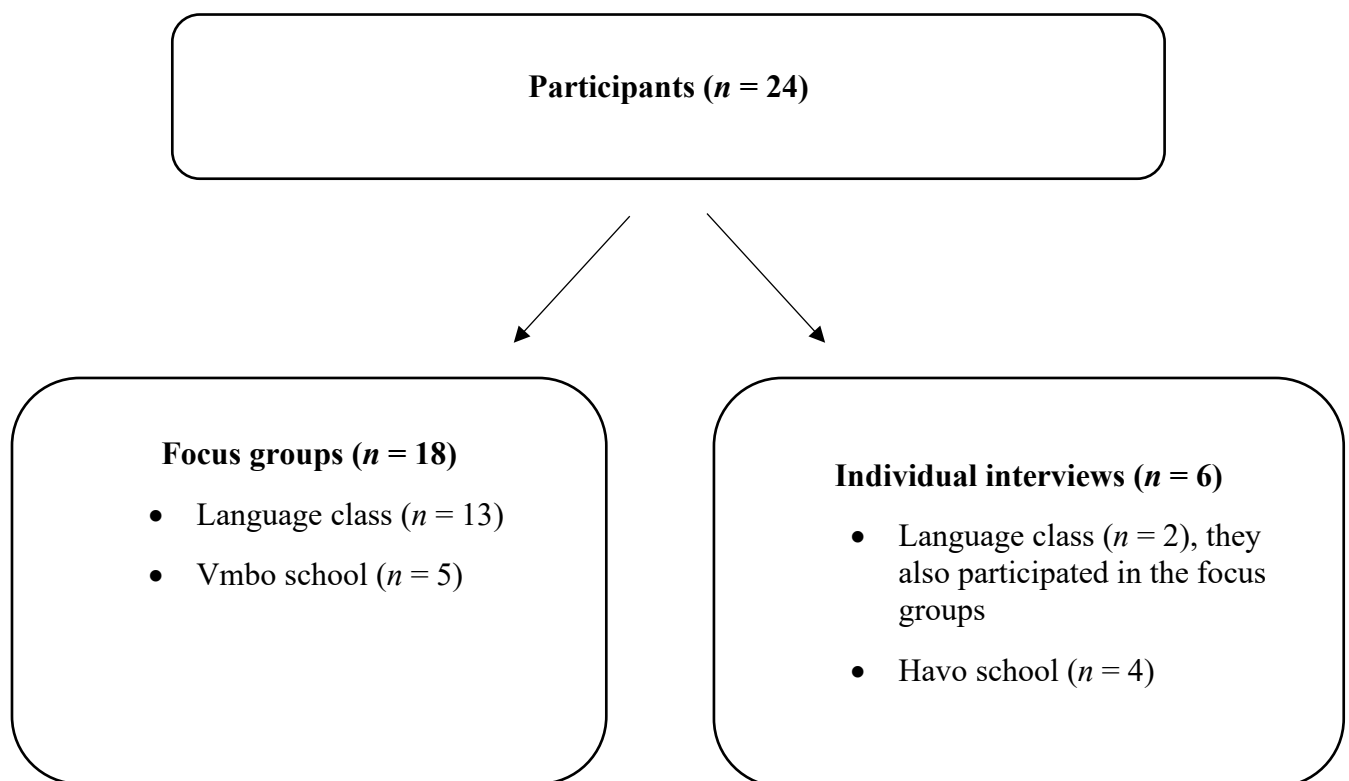
#### **Participants**

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Because the COVID-19 pandemic made it more difficult to maintain contact with schools in Utrecht, we selected teenagers from three different schools in Amsterdam. In the selecting process, we tried to match the target group of the Filter Bubble project as much as possible. The first school we selected students from, offers a one-year program between primary and secondary school for teenagers with a language gap. From this school we selected a group of teenagers (12-13 years old) with a vmbo-t level (i.e. preparatory vocational education). The second school we selected students from is a secondary school, from which we have selected a number of teenagers in their first year of vmbo (12-13 years old). The third school we selected students from is a secondary havo school (i.e. senior general secondary education), from which we selected students in their third year (12-15 years old). We selected them based on their outspoken opinions. Figure 1 shows how the group of participants was composed and to which interviews they were assigned.

**Figure 1**

*Schematic representation of the participants.*



### **Instruments**

Both the focus groups and the semi-structured interviews were developed based on the theoretical framework that underlies this study (Appendix 2 & 3). We tested all the activities on a similar group of participants before we put them into practice.

**Focus groups.** The focus groups examined whether teenagers' click behavior on YouTube had a negative influence on democratic values of freedom and consensus. We decided to use this platform, because as an internet user, you do not need an account to look up information. This allowed us to minimize the algorithmic influence during the focus groups. We did this by having the teenagers perform the tasks without signing in to an account and with a clean search history. To complement the activities, group discussions were carried out to identify the considerations teenagers make when clicking on a video. In these discussions, we also asked questions about teenagers' click behavior on other social media platforms (e.g. Instagram and TikTok). The focus groups included two activities.

In the first activity teenagers had to type in the search term 'Is being woke good or bad?'. We decided to work with this search term, because of the diversity in perspectives and in video types that appeared in the search query. For example, both videos that valued woke culture versus videos that were against it showed up. The same applied to videos with clickbait and videos free from clickbait. This gave the teenagers several options to choose from. With this search term as a starting point, they had to click further or click back on videos. They were allowed to click on videos that did not resemble the original search term. The goal of this activity was to find out what considerations teenagers made before they decided to click on a video.

During the second activity teenagers had to type in the same search term as in the first activity. However, the aim was not to click on as many videos as possible, but to obtain

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information about the question in the search term. With this activity we tried to explore what YouTube videos the teenagers perceived as reliable sources.

**Individual interviews.** The individual interviews examined whether teenagers' filter bubbles had a negative influence on democratic values of freedom and consensus. The interviews consisted of three parts. In the first part, teenagers had to arrange cards with pictograms of social media platforms, from least to most used. Based on their ranking, we asked why they arranged the cards in the way they did and how they normally use these platforms. In the second part, they had to choose three topics from a list with themes that went viral on social media. We asked questions to retrieve their opinions on those topics and to explore what online factors contributed to them forming these opinions. The third part consisted of a walk-through activity, in which teenagers scrolled through the feeds of their most frequently used social media platforms. As they scrolled, had to think-aloud which pages they were following, what content it included, and why they followed those pages. The goal of this activity was to get an impression of teenagers' filter bubbles and to capture their experience with filter bubbles.

### **Data Analysis**

All interviews were transcribed verbatim and analyzed in NVivo 12. We first started with open coding, then continued with axial coding and selective coding. (Boeije, 2019).

### **Findings**

The following section discusses the findings of the individual interviews and focus groups. These will be outlined according to the sub-questions that are central to this study.

**Does teenagers' click behavior form a threat to the democratic value of freedom and if so, how?**

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This section will discuss the algorithmic, personal and social factors that could contribute to the emergence of filter bubbles and therefore to the undermining of the democratic value of freedom. The findings under this sub-question are retrieved from the focus groups.

**Selective exposure.** The majority of the teenagers ended up clicking on content that had nothing to do with the search term they had to fill in at the beginning of the exercise. When they were instructed to click through as many videos as possible, almost all of them intentionally looked for videos that matched with their already existing interests. In their search for content that matched with their interests and opinions, all of the teenagers mainly looked at the picture and the title of the video to assess whether it met their expectations. A few teenagers also looked at the preview of the video before they decided to click on it. The content they clicked on usually included funny videos, videos featuring people they like (e.g. certain celebrities or influencers), or videos with topics that appealed to them. For example, it was noticeable that the girls mainly watched vlogs, make-up or drawing tutorials and videos about food. Boys, on the other hand, often watched street interviews, interviews with famous people, game videos and sports videos.

Another insight was that a few teenagers intentionally clicked on videos with titles that corresponded to their opinions. The following quote illustrates this.

Researcher: (...) ““The woke culture is the greatest threat to our individual freedom," would you click on that and why?”

Girl, 12 yr., language class: “No, because I'm completely against what they're saying.”

A 12-year-old boy from the same school, was the only teenager in the focus groups that disagreed. He considered it important to take in different opinions, because in this way he could decide for himself what to agree with. He indicated that he was intentionally looking for both sides of the story. However, even though he took in different opinions, he only followed

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pages that suited his opinion, because he did not want to support pages he did not agree with.

The following quotes illustrate how the boy and the girl disagreed with each other.

Boy: “Then why don't watch video's with other opinions and see what they have to say?”

Girl: “Because they're already against, so then you don't get to know anything, do you understand?”

Boy: “You do get to know something, because then they say "This argument is wrong, here and hereafter.””

Girl: “But then it doesn't make your opinion stronger, you know? You want to strengthen your opinion.”

Boy: “Except when your opinion is incorrect (...) When it comes to gathering information, I click on both opinions because I want to see what every side has to say. Then I can decide for myself if they are good or bad arguments.”

**Nudging.** During the focus groups, the teenagers were exposed to different nudging techniques used by YouTube. Firstly, they came across videos with a question in the title or thumbnail that left them curious about the answer. Most teenagers indicated they were more likely to click on those kind of videos. Secondly, the YouTube algorithm makes certain videos appear at the top of search results. The teenagers were usually more likely to click on highly recommended videos than on low recommended videos. A few the teenagers indicated this was because it meant the video was popular. A few other teenagers mentioned that highly recommended videos often relate most to the search query, which makes it more relevant to click on. Thirdly, the YouTube algorithm tried to nudge the teenagers towards content that was similar to videos they had previously clicked on during the focus group. A large part of the teenagers did not click on these recommended videos if they were not in line with their



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preferences or if they did not spark any curiosity in them. In these cases, their personal preferences outweighed the influence of nudging techniques. The following example of a girl illustrates this. Although the algorithm recommended more videos of Geert Wilders, a Dutch extreme right-wing politician, she refused to click on them. Instead she went back to the first page to search for videos she liked, so that she would get more of that recommended.

Girl, 12 yr., language class: (...) “I hate Geert Wilders. I thought if I press something and then click, I can get to something I like, but I didn't find that, I got more of Geert Wilders. And I said “Oh no, I just need to go away again.” I scrolled through the suggestions again, then I found something about make-up and stuff – that girl who does tutorials. Then I thought, “Okay, that's going to take me to what I want.”

**Summary.** It was found in the focus groups that, with minimal algorithmic influence, almost all of the teenagers intentionally clicked on videos matching their own interests. A few of them also consciously clicked on content that was in line with their opinion. There was only one teenager who explicitly stated that he also looked for content containing opinions other than his own. The focus groups also indicated that teenagers were sensitive to certain nudging techniques, such as videos with titles and thumbnails that responded to their curiosity or videos that were highly recommended by the algorithm. However, the nudging techniques did not always work, for example, in the case where recommended videos did not match teenagers' preferences or when it did not arouse curiosity in them.

**Do teenagers' filter bubbles form a threat to the democratic value of freedom and if so, how?**

This section will discuss the algorithmic, personal and social factors that could contribute to the emergence of filter bubbles and therefore to the undermining of the democratic value of freedom. The findings under this sub-question are based on the individual interviews with teenagers.

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**Selective Exposure.** Identity, upbringing, preferences, perspectives, values and norms were often mentioned as personal factors that influenced teenagers' decision on what content to watch, and what to follow or to unfollow. For example, a boy indicated that he supported Palestine, because he identifies as a Muslim and a lot of Palestinians are Muslim too. For this reason, he followed pages that shared the same perspective on Israel-Palestine. He, for instance, followed a soccer player on Instagram that expressed support for Palestine by posting a picture saying 'Free Palestine'. When we asked the boy if he would still follow the soccer player if he supported Israel, he admitted that he would unfollow him for the following reason:

Boy, 15 yr., havo: "Because he himself is also Muslim and that's not possible.

Supposing he did support them, yeah eh, I wouldn't look at him or anything or want anything to do with him anymore, you know?"

According to the boy, anyone who is Muslim, should be on the side of Palestine. This example illustrates how both the identity and the perspective of the boy influenced his choice to follow and unfollow certain pages.

**Nudging.** The interviews indicated that all of the teenagers encountered content on Instagram and on their TikTok For You Page (FYP) about Israel-Palestine, BLM, sexuality, gender identity, Islamophobia and racism. They were nudged to these topics, because they were trending on social media. This content was always created from a certain perspective. For example, it was often mentioned that teenagers saw commentary videos pass by in their feed. In these videos the perspective of 'the other' is being contradicted. The following quote from a boy, who makes a lot of commentary videos, illustrates this:

Boy, 13 yr., language class: "I usually respond to videos where I think "That's is not quite right"."

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All of the teenagers indicated that once they saw one thing about these topics, they started to see more of it. This was partly due to the fact that these topics were trending. Other reasons for this were that teenagers clicked on the like button and because they started following pages that posted these videos. The following quote illustrates how a girl came into contact with the topic 'BLM'.

Girl, 12 yr., language class: "It became a bit of a hype, because BLM came out (...) it's just people who come on your FYP, they're not really influencers, just people who talk about it (...). When you come to a FYP like this you automatically get very caught up in it."

Another way in which most of the teenagers were nudged towards certain content was through social pressure. A few students were able to explicitly name how this had an influence on the content they watched and shared on social media. This quote illustrates the pressure to form a certain opinion on societal topics. The fear of being judged by internet users in the same social network may be an extrinsic motivation for forming a strong opinion.

Girl, 15 yr., havo: "At BLM, you saw it everywhere, including people who never posted anything about it joined the movement; everyone started talking about it. (...) If you didn't talk about it you got a lot of hate. Then they're like "Yeah, you don't support it." Also with election day with Trump and Biden. There was a lot of talk there too and people started sharing their opinions because everyone was interested in who was supporting Trump or Biden."

Finally, most of the teenagers were nudged towards certain content through social influence. This took place both online and offline. On the one hand, young people mostly followed influencers who spoke out on societal issues. On the other hand, social influence

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took place within the family. Many of the youth revealed that they hold the opinions of their parents or siblings in high regard and that their opinions are influenced by them.

**Summary.** The individual interviews indicated that almost all of the teenagers decided what to watch and who to (un)follow based on their identity, upbringing, preferences, perspectives and values and norms. They also indicated that they were nudged to certain societal topics because they were trending on social media. Other ways in which most of the teenagers were nudged towards certain content was through social pressure or social influence.

### **Does teenagers' click behavior form a threat to the democratic value of consensus and if so, how?**

As mentioned in the introduction, many of the spreaders of fake news make use of clickbait. This could influence the emergence of specific filter bubbles that, for example, mainly contain alternative facts. In turn, this could contribute to the undermining of the democratic value of consensus. The findings under this sub-question are based on focus groups with teenagers.

**Clickbait and alternative facts.** Most teenagers had an idea about what clickbait entailed, while a few had never heard of it. Teenagers often thought clickbait was equal to a lie. It was also mentioned several times that clickbait "forces" internet users to click on a video, by making the title and picture more exciting than the video actually is. The following quote is an example of a definition a teenager gave.

Boy, 12 yr., language class: "Clickbait is kind of, they're showing interesting things in the thumbnail and they say "This and that happens," and then I click on it and something completely else happens. So they say, for example, "I'm going to have a house exploded today," then you press on it and just a box explodes."

Teenagers' definition of clickbait is narrower than the actual definition; clickbait may include

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a lie, as the teenagers argue, but clickbait does not inherently equal a lie.

According to their own claims, the youth would not take clickbait videos seriously because they found them unreliable. They indicated they could recognize clickbait videos by the large font in the title, by the a thumbnail edited to an extreme unrealistic degree and by a thumbnail that pictures a person's shocked facial expression. However, during the focus groups it often occurred that teenagers clicked on a clickbait video because they did not recognize it as a clickbait. This discrepancy can be explained by the narrow definition of clickbait they had in mind. Another reason for this discrepancy may be the high entertainment value of such videos, which triggers feelings of curiosity and fascination and positively contributes to teenagers watching these videos. This was especially demonstrated by the fact that there were a few young people that liked watching conspiracy videos on YouTube. The following quote from illustrates the curiosity he experiences towards conspiracies.

Researcher: "(...) at one point you came to Thierry Baudet. Why did you click on that video?"

Boy, 13 yr., language class: "Um, just, I wanted to see what he had to say. He's a man of conspiracies, but some of them do have truths."

**Summary.** The focus groups indicated that none of the teenagers would take clickbait videos seriously because they found them unreliable. However, because they often had a narrow definition of clickbait in mind, they did not always recognize clickbait videos. Therefore it did often occur that teenagers did click on those kind of videos. Another reason for this discrepancy may be the high entertainment value of such videos, which triggers feelings of curiosity and fascination. This can cause teenagers to click on them.

**Do teenagers' filter bubbles form a threat to the democratic value of consensus and if so, how?**

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As mentioned in the introduction, the constant confirmation of certain ideologies, which is likely to occur in echo-chambers, is a threat for the democratic value of consensus. The findings under this sub-question are based on individual interviews with teenagers.

**Echo-Chambers.** Many teenagers indicated that they consider something to be true when many people agree on it (i.e. when there is consensus on a certain subject). The following conversation illustrates this.

Researcher: “And then when they give information, is it reliable information?”

Boy, 12 yr., language class: “I actually really don't know, but what I do know, is that often it is true information.”

Researcher: “How do you know that?”

Boy, 12 yr., language class: “I know that, by others saying it too. Not just him, but also him and him.”

In addition, it was common for teenagers to indicate that there are many people with the same opinion as them. They often felt that this was the case both online and offline. However, this was often not in line with reality. For example, it was mentioned by a number of teenagers, who did not like the idea of homosexuality, that they thought there were more people in the world who were homophobic than pro-LGBTQ+. This could indicate that teenagers' perception of reality was distorted by an echo-chamber.

The distorted perception of reality can be explained by the following two findings. On the one hand, all teenagers indicated that they mainly followed pages in line with their opinions and usually unfollowed pages that fundamentally contradicted them. This can create the perception that there are more people with the same opinion as them, because they have created an online reality where this is the case. On the other hand, a large part of the teenagers indicated that their opinions were confirmed by other internet users. This may also reinforce

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the idea that there are many people who think alike. In the following quote, a teenager illustrates this by explaining why he thinks his opinion is valid.

Researcher: “And then you also see people who think the same thing and then....”

Boy, 15 yr., havo: “Yes, usually I do see people then and then I just think to myself “okay, this opinion is just valid”, you know what I mean?”

Researcher: “Because you get that confirmation?”

Boy, 15 yr., havo: “Yes, exactly. You get that confirmation, from a lot of people even.”

Online confirmation can occur explicitly, by getting reactions, but also implicitly. For example, by the number of likes you get.

**Summary.** The individual interviews indicated that teenagers considered something to be true when a lot of people shared that opinion. In addition, it was common for teenagers to think that many people had the same opinion as them, while this was not in line with reality. This could indicate that teenagers’ perception of reality was distorted by an echo-chamber. The dissonance between teenagers’ online and offline reality can be explained by the finding that teenagers mainly followed pages that fit their opinions and usually unfollowed pages that fundamentally contradicted them. Another explanation could be that the opinions of the teenagers were often confirmed by other internet users (e.g. via likes or reactions). This contributed to them being even more convinced of their own truth.

### Discussion

Research regarding the experiences of teenagers with filter bubbles is to this day non-existent and therefore this is of great importance to investigate. In this study we explored if

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and how teenagers' filter bubbles and their click behavior form a threat to democratic values of freedom and consensus. This study has provided a number of important findings.

### **Freedom**

Both the focus groups and the individual interviews showed that teenagers intentionally shaped their own filter bubbles, based on their opinions and preferences. This finding is consistent with the selective exposure theory, which states that individuals prefer to perceive information that matches what they already know and believe, while they tend to avoid information that does not match with these frameworks (Munson et al., 2013). This has a positive impact on teenagers' democratic value of freedom. However, the focus groups and the individual interviews also indicated that teenagers were nudged to certain content by algorithmic as well as by social factors. Literature in the theoretical framework showed that this had a negative impact on teenagers' democratic value of freedom (e.g. Aaldering et al., 2020; De Vries, 2010; Dalghren, 2021). In conclusion, filter bubbles can have both a positive and a negative influence on teenagers' democratic value of freedom.

### **Consensus**

The focus groups indicated that teenagers did not always recognized clickbait videos. As described in the introduction, many spreaders of fake news often make use of clickbait to generate attention. Therefore, there might be a real possibility teenagers will be exposed to fake news or alternative facts without being aware of that. As found in the individual interviews, teenagers considered something to be true when a lot of people shared the same opinion. Thus, the exposure to fake news or alternative facts can be problematic when teenagers get the perception a lot of people believe in it. This is likely to occur in echo-chambers, because Stinchombe (2010) and Vinokur & Burnstein (1978) argue that echo-chambers cause internet users to have their ideologies constantly confirmed. Findings from



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the individual interviews showed a dissonance between teenagers' online reality and the actual reality: it was common for them to think that many people agreed with their opinion, while this was not in line with reality. This makes it likely that their opinions were reinforced by online echo-chambers. According to the literature in the theoretical framework it becomes harder to reach consensus when society is divided into different echo-chambers (Sunstein, 2001, 2009) and when internet users come to believe in fake news and alternative facts on a large scale. Thus, both the findings of the focus groups and the individual interviews indicate that filter bubbles can have a negative impact on teenagers' democratic value of consensus building.

### **Implications**

**Practical implications.** Within the social sciences, there is a growing body of research on filter bubbles and their impact on individuals and society. Various solutions are being suggested to minimize the negative consequences that filter bubbles can cause (e.g. raising awareness of their existence and their consequences). From this study, the following practical implications can be applied to these solutions.

The influence of algorithmic, as well as personal and social factors are important in creating and maintaining internet users' filter bubble. In the literature, there's no agreement on which one of these factors has more influence (Lazarsfeld et al., 1944). Usually interventions that aim to raise awareness about filter bubbles, mainly focus on either the algorithms or the user's own contribution to its existence. Therefore, a practical implication is to raise awareness about filter bubbles, while acknowledging and emphasizing all three, because it will provide a broader understanding of the creation of filter bubbles. For example, this can be brought into practice, by developing interventions that discuss the operation of all three processes. Then, through visualization tasks or vignettes, it can be operationalized how they contribute to bubble formation.

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A second implication is that societal consequences (e.g. polarization or the threat to democratic values) regarding filter bubbles, need to be included when contributing to teenagers' awareness. These consequences are generally far from young people's minds. Therefore, our task as pedagogues and educators is to guide teenagers in this regard, if we consider it our responsibility make them aware of filter bubbles.

A final implication is that we, as educators and pedagogues, need to be aware of the power structures between different filter bubbles. As mentioned before, they can undermine democratic values such as consensus and freedom. However, the opposite can be true if we want to stimulate teenagers to occasionally step out of their bubble. Similar to the offline world, power relations play a role in online filter bubbles. For example, whereas one filter bubble is primarily representative for marginalized groups in society, another bubble is representative for more dominant groups. When we want to encourage youth to step out of their bubble on an equal basis, we fail to recognize the inequalities that play a role in bubble formation. A bubble can offer a sense of security for marginalized groups. When they are stimulated to step out of their bubble this does undermine the democratic value of equality, because they have to give up more (e.g., part of their sense of security) than someone of a dominant group that gets stimulated to step out of their bubble.

**Future research.** Current study serves as a foundation for further research on the impact of filter bubbles on teenagers. The results from this study offered interesting insights. However, it is important that this study will be repeated on a larger scale. This will help to improve the generalizability of the results. Especially the walk-through method (Light et al., 2018, in Swart, 2019) and the think-aloud method (Charters, 2003, in Swart, 2019) captured teenagers' experience with filter bubbles very well. Therefore we recommend to include these methods in future research.

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This study focused on the threat of filter bubbles on democratic values. However, interviews with teenagers demonstrated that, on TikTok and Instagram, they were very much engaged regarding issues of justice and social change. In other words, they showed civic engagement – the motivation improve conditions for others and for the future community (Adler & Goggin, 2005)– by reading about certain themes (e.g. BLM and Israel-Palestine) and by sharing posts about it to educate others. Therefore, future research should not only focus on the negative effects of filter bubbles on democratic values, but also on the positive effects.

### **Strengths and Limitations**

**Strengths.** First of all, research on teenagers' experience with filter bubbles is non-existent. Therefore, this study offered a new perspective within the field of social sciences. This study used both individual interviews and focus groups, which contributed to a deeper understanding of the findings and a more complete picture of the phenomena being studied. This triangulation also increased the reliability of the study (Baarda et al., 2013). Another strength was that the focus groups were tested several times beforehand on a group of teenagers who were the same age and were from the same city as the actual sample. In addition, both the focus groups and the individual interviews were reviewed by co-researchers. Finally, structured interviews were used. These factors contributed positively to the validity of the study.

**Limitations.** A limitation of the study is the relatively small sample size. Because this study was of exploratory nature and because a heterogeneous sample was used, a greater number of subjects would have been desirable (Boeije, 2019, p. 60). For these reasons, the results of this study should be interpreted carefully.

### **Conclusion**

This study indicated that filter bubbles could have a negative influence on the democratic value of consensus. However, it also indicated that filter bubbles could have both a positive and a negative influence on the democratic value of freedom. An interaction between personal, social and algorithmic factors play a role here. It is a given that filter bubbles are present in today's age. Our task, as educators and pedagogues, lies in making youth resilient to the negative effects of filter bubbles and allowing them to benefit from the positive effects. As we learn more and more about the phenomenon, it is desirable to look at the course we want to take to achieve this goal.

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## Appendix 1

### *Consent forms*

TOESTEMMINGSVERKLARING (in te vullen door ouder/voogd én kind) voor deelname aan:

#### **AntiBubble Onderzoek**

Ik, ouder of voogd van het hieronder genoemde kind, bevestig:

- dat ik via de informatiebrief naar tevredenheid over het onderzoek ben ingelicht;
- dat ik in de gelegenheid ben gesteld om vragen over het onderzoek te stellen en dat mijn eventuele vragen naar tevredenheid zijn beantwoord;
- dat ik gelegenheid heb gehad om grondig over deelname aan het onderzoek na te denken;
- dat ik uit vrije wil toestemming geef dat mijn kind deelneemt.

Ik stem er mee in dat:

- de verzamelde gegevens voor wetenschappelijke doelen worden verkregen en bewaard zoals in de informatiebrief vermeld staat;
- de anonieme onderzoeksgegevens door wetenschappers kunnen worden gedeeld en/of worden hergebruikt om eventueel andere onderzoeksvragen over het gebruik van sociale media te beantwoorden en hoe sociale media proberen het gedrag van jongeren te beïnvloeden zonder dat zij dat zelf weten.
- er voor wetenschappelijke doeleinden ook geluidsopnamen worden gemaakt van de gesprekken, welke worden verwijderd na analyse. Er worden geen video-opnamen gemaakt.

Ik begrijp dat:

- ik het recht heb om mijn toestemming voor het gebruik van de data van mijn kind in te trekken, zoals vermeld staat in de informatiebrief.

Naam ouder of voogd: Klik of tik om tekst in te voeren.

Naam kind: Klik of tik om tekst in te voeren.

Geboortedatum ouder of voogd: Klik of tik om een datum in te voeren.

Geboortedatum kind: Klik of tik om een datum in te voeren.

Handtekening ouder of voogd:

Handtekening kind:

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Datum: \_\_\_ / \_\_\_ / \_\_\_ plaats Klik of tik om tekst in te voeren.

Gaat u er mee akkoord dat de verzamelde geluidsopnamen van uw kind gedeeld worden met andere onderzoekers voor onderzoeksdoeleinden?

Ouder of voogd:       Ja, daar ga ik mee akkoord.                       Nee, niet akkoord.  
Kind:                       Ja, daar ga ik mee akkoord.                       Nee, niet akkoord.

Als u dit toestemmingsformulier ondertekent zal uw kind in principe aan 1 gesprek deelnemen. We kunnen u kind vragen om aan meer dan 1 gesprek deel te nemen (maximaal 4 gesprekken).

Mag uw kind aan meer dan 1 gesprek deelnemen?

Ouder of voogd:       Ja, daar ga ik mee akkoord.                       Nee, niet akkoord.  
Kind:                       Ja, daar ga ik mee akkoord.                       Nee, niet akkoord.

## Appendix 2

### *Focus group interview*

#### **Focusgroep**

#### Opdracht 1

Vorbereiding:

- Jongeren zitten achter een laptop op YouTube;
- Jongeren hebben een koptelefoon of oortjes;
- De YouTube zoekgeschiedenis is verwijderd, zodat de leerlingen met een blanco pagina beginnen die niet aanpast is op eigen voorkeuren.

Jongeren typen op YouTube allemaal dezelfde zoekterm in, namelijk: "Is woke zijn goed of slecht?" Ze krijgen vervolgens 10 minuten om aan de hand van die zoekterm op filmpjes te klikken. Deze filmpjes hoeven ze niet (volledig) te bekijken. Het gaat er puur om dat ze klikken op video's die ze leuk lijken naar aanleiding van de titel en de thumbnail. Het is de bedoeling dat ze dit aan de hand van hun eigen voorkeuren doen: Waar zouden ze normaal gesproken op klikken? Wat voor soort content?

De jongeren mogen op de volgende manieren door klikken:

- Door terug te gaan naar de hoofdpagina van de zoekopdracht;
- Door te klikken op reacties of op accounts die onder de filmpjes staan;
- Door te klikken op aanbevolen video's.

Ik geef ze deze opties, zodat de jongeren ruimte krijgen om te klikken op de manier die ze normaal gesproken ook hanteren. Hierdoor krijgen we meer inzicht in hun dagelijkse klikgedrag op YouTube. Na de tien minuten stoppen de jongeren met klikken en maken we een foto van de zoekgeschiedenis van de leerlingen. Wij kunnen hierdoor zien op wat voor soort video's de leerlingen klikten. Vervolgens gebruiken we hun zoekgeschiedenis ook als leidraad voor het voeren van gesprekken. De jongeren gaan in kleine groepjes (2 tot 3 jongeren) in met ons gesprek over de opdracht. We stellen we ze de volgende vragen:

- **Waar heb je allemaal op geklikt?**  
*(Erachter komen welke video's er langskwamen, ter introductie van het gesprek)*
- **Waarom klikte je op \*filmpje dat gekeken werd\*?**  
*(Doorvragen op wat van toepassing is (in het geval dat de jongere een kort antwoord geeft):*
  - **Sprak het onderwerp je aan, waarom?;**
  - **Sprak de titel je aan, waarom?;**
  - **Sprak de thumbnail je aan, waarom?;**
  - **Klikte je op de eerst aanbevolen video of scrolde je meer naar beneden voor een video? Waarom wel of waarom niet?;**
  - **Kijk je ook naar het aantal views, likes of reacties als je doorklikt?;**
  - **Was er iets anders wat je aantrok aan het filmpje? Wat, en waarom?;***(Erachter komen wat de jongeren dreef om bepaalde filmpjes aan te klikken)*
- **Zijn er verschillen in hoe je klikt op YouTube vergeleken met TikTok en/of Instagram (evt. Facebook)? Zo ja, wat voor verschillen merk je?"**  
*(Erachter komen hoe de jongeren klikken op andere platformen)*

## Opdracht 2

Jongeren typen op YouTube allemaal dezelfde zoekterm in, namelijk: “Is woke zijn goed of slecht?” Dit onderwerp heb ik gekozen, omdat ze daar waarschijnlijk nog geen (sterke) mening over hebben gevormd. Ze krijgen vervolgens 15 minuten om aan de hand van die zoekterm op filmpjes te klikken en deze daadwerkelijk te bekijken. Het gaat er niet zoals bij de vorige opdracht om, om zoveel mogelijk filmpjes aan te klikken, maar om informatie te verkrijgen over “Is woke zijn goed of slecht?” Als het filmpje langer is dan 5 minuten mogen ze ook een deel van het filmpje kijken, omdat het de bedoeling is dat ze binnen 15 minuten meer dan 1 video hebben gekeken. De jongeren mogen zelf kiezen op welke video ze klikken, mits het gaat over hetzelfde onderwerp als de zoekterm. Bij de vorige opdracht maakte het niet uit waar de jongeren eindigden qua thema, maar nu wel.

De jongeren mogen op de volgende manieren door klikken:

- Door terug te gaan naar de hoofdpagina van de zoekopdracht;
- Door te klikken op reacties of op accounts die onder de filmpjes staan;
- Door te klikken op aanbevolen video's.

Met deze opdracht beoog ik te achterhalen of jongeren zich, zoals in de literatuur staat, daadwerkelijk aangetrokken voelen tot clickbait video's of video's met een hoge entertainment graad en wat voor betekenis ze hieraan geven (door hun zoekgeschiedenis te analyseren en de antwoorden die de jongeren geven). Daarnaast is het waardevol om te achterhalen of dit soort video's ook hun mening beïnvloeden (door de antwoorden die de jongeren geven te analyseren). Als dit het geval is kan dat namelijk bijdragen aan polarisatie. Na afloop stellen we ze de volgende vragen:

- **Langs video's ben je gekomen? Waar gingen deze over?;**  
*(Erachter komen welke video's er langskwamen, ter introductie van het gesprek)*
- **Waarom klikte je op \*filmpje dat gekeken werd\*?**  
(Doorvragen op wat van toepassing is (in het geval dat de jongere een kort antwoord geeft):
  - **Sprak het onderwerp je aan, waarom?;**
  - **Sprak de titel je aan, waarom?;**
  - **Sprak de thumbnail je aan, waarom?;**
  - **Klikte je op de eerst aanbevolen video of scrolde je meer naar beneden voor een video? Waarom wel of waarom niet?;**
  - **Kijk je ook naar het aantal views, likes of reacties als je doorklikt?;**
  - **Was er iets anders wat je aantrok aan het filmpje? Wat, en waarom?;**
  - **Wat zijn de voor- en nadelen van dit filmpje/dit soort filmpjes?;**
  - **Vond je het filmpje overdreven of realistisch? Zou je het serieus nemen?;**  
*(Erachter komen wat de jongeren dreef om bepaalde filmpjes aan te klikken)*
- **Zou je ook op het filmpje geklikt hebben waar ... op heeft geklikt? Waarom wel of waarom niet?;**  
*(Erachter komen wat de jongeren dreef om bepaalde filmpjes aan te klikken)*
- **Had je een mening over dit onderwerp voor je de filmpjes had gekeken? Zo ja, wat was je mening hierover?;**  
*(Erachter komen wat de beginsituatie was van de jongeren met betrekking tot hun mening over het onderwerp)*
- **Welke mening heb je gekregen nu je meer informatie over het onderwerp hebt?;**

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*(Erachter komen wat jongeren vinden van hetgeen waar ze filmpjes over hebben gekeken, ter introductie van het verdere gesprek over meningsvorming)*

- **Waardoor vind je dit? Heb je dit uit één bepaald filmpje dat je hebt gekeken of meerdere?;**

*(Erachter waar jongeren hun mening op baseren)*

- **Waarom ben je dit gaan vinden na het kijken van dit/deze filmpjes?;**

- *(Erachter waar jongeren hun mening op baseren)*

- **Hoe zou je normaal gesproken je mening vormen over “...”?;**

- **Welke app of site zou je hiervoor gebruiken?;**

- **Wat zou je intypen?;**

- **Wat voor soort website, video of post zou je aanklikken en waarom?**

*(Erachter komen hoe ze in een vrije situatie informatie zouden opzoeken)*

## Appendix 3

### *Individual interview*

#### **Individuele interviews met jongeren met een uitgesproken mening**

Doel interview: What factors led young people with outspoken ideals/opinions to polarizing filter bubbles, according to them and their youth workers?

#### Opdracht 1

Plaatjes schuiven om te achterhalen welke social media platformen de jongeren het meest gebruiken. Vragen die hier centraal staan: welke online (social) media gebruiken jongeren? Hoe (voor welke behoeften en op welke manier) maken jongeren gebruik van online (sociale) media? En voor welke doelen? Wat doen ze op deze sociale media? En ervaren ze verschillen tussen hun eigen voorkeuren en de media voorkeuren van hun peers? En hoe is dit specifiek voor het zoeken naar nieuws?

Om aan te sluiten bij de concentratieboog van de jongeren, om het stellen van vragen niet te eenzijdig te laten zijn en een spontaner gesprek tussen ons en de jongeren te stimuleren, maken we gebruik van kaartjes met plaatjes die aan de basis liggen van de gesprekken.

Op de plaatjes staan de iconen van de verschillende sociale media die gebruikt worden onder jongeren (+ blanco kaartjes om in te vullen). FOTO'S VAN MAKEN(!)

- **Gebruik je sociale media (check hier de term sociale media, te bedoelen dan apps zoals insta, tiktok etc)? Zo nee, waarom niet? Zo ja, kan je de kaartjes op tafel ordenen van de meest gebruikte sociale media naar de minst gebruikte** (Links = minst gebruikt, rechts = meest gebruikt); **Zijn er ook nog apps die je gebruikt die hier niet bijliggen die je vaak gebruikt, dus bijv. een keer per week?**

*(Doel van vraag: In kaart brengen welke social media gebruiken de deelnemers, dit ter introductie en als context voor het interview)*

- **Waarvoor gebruik je ...** (noem apps die men aangeeft vaak te gebruiken?

*(Wat is het motief van de respondenten om bepaalde apps te gebruiken)*

- **Wat doe je allemaal op dit platform (bv. kijken, liken, posten, zelf dingen erop zetten)?**

*(Hoe actief zijn de respondenten in deze app: kijken zij alleen, geven zij commentaar of maken zij zelf ook content)*

#### Opdracht 2

Plaatjes neerleggen over verschillende actualiteiten die ook op social media en online nieuwssites voorbij zijn gekomen de afgelopen tijd. De volgende vragen die daarbij horen stel ik allereerst om hun idealen en meningen boven water te krijgen. Ten tweede stel ik ze om te achterhalen welke online factoren eraan hebben bijgedragen dat ze deze mening hebben gevormd.

- **Maak een top drie van de onderwerpen die je hebt gevolgd/langs zien komen op sociale media. Waar wil je het over hebben?;**  
*(Erachter komen met welke onderwerpen de respondenten in aanraking komen ter introductie voor het verdere gesprek)*
- **Waar/op welk platform heb je hierover gelezen of gezien? En op welke pagina?;**  
*(De online context waar de respondent informatie tot zich krijgt helder krijgen)*

- **Wat voor soort pagina is dit? Wat posten ze normaal gesproken?;**  
*(De online context waar de respondent informatie tot zich krijgt helder krijgen)*
- **Heb je een mening over dit onderwerp? Zo ja, wat vind je ervan? Zo nee, hoe komt dat?;**  
*(Erachter komen waar de jongeren uitgesproken over zijn)*
- **Hoe kom je op deze mening? Wat heb je gelezen en bekeken of met wie heb je gepraat om deze mening te krijgen?;**  
*(Erachter komen wat jongeren beïnvloed heeft in hun meningsvorming)*
- **Kan je een voorbeeld noemen/laten zien welke posts/reacties jou hebben overtuigd om deze mening te krijgen?;**  
*(Erachter komen wat jongeren beïnvloed heeft in hun meningsvorming)*
- **Ken je een bekende influencer die hier ook een mening over had? Was je het hiermee eens of oneens? Waarom? Maakt het uit wie dit gezegd zou hebben?;**  
*(Erachter komen of influencers jongeren beïnvloeden in hun meningsvorming)*
- **Had je deze mening altijd al of is deze mening veranderd? Zo ja, hoe komt dat? Is er offline iets gebeurd, waardoor je mening is veranderd? Is er online iets gebeurd, waardoor je mening is veranderd?;**  
*(Erachter komen wat jongeren beïnvloed heeft in hun meningsvorming. Ook probeer ik met deze vraag te achterhalen of er een kantelpunt zat in wat jongeren over het onderwerpen denken)*
- **Heb je deze mening online gedeeld? Heb je de behoefte deze mening online te delen?;**
- **Wat voor reacties kreeg je daarop? Hoe voelde je je hierdoor? Waren dit dezelfde reacties of verschillende?;**  
*(Erachter komen of jongeren in een echo-chamber leven en of er sprake was van een polariserend conflict)*
- **Ben je wel eens in gesprek gegaan met iemand die hier een andere mening over had (online en/of offline)? Of ken je iemand die dit heeft gedaan?; Waarom wel of waarom niet? Hoe ging zo een gesprek? Legde je/diegene je mening rustig uit? Reageerde je/diegene boos? Wat gebeurde er toen?;**  
*(Erachter komen of jongeren in een echo-chamber leven en of er sprake was van een polariserend conflict)*

### Opdracht 3

Walk-through opdracht: De jongeren laten zien hoe ze de 2 of 3 meest gebruikte platformen gebruiken. Dit doen ze via hun telefoon. Ze scrollen door hun feed en vertellen al scrollend welke pagina's ze volgen, wat deze posten (eventueel laten zien), waarom ze deze pagina's volgen)? Ook vertellen ze hoe ze bij deze pagina's zijn gekomen.

Andere vragen bij deze opdracht:

- **Volg je pagina's die passen bij je meningen en/of interesses? (Dus: volg je pagina's die dingen posten waar je het mee eens bent?) Wat posten zij? (om te achterhalen of de jongeren in echo-chambers leven);**
- **Volg je pagina's die dingen posten waar je het niet mee eens bent? Wat posten zij? (om te achterhalen of de jongeren in echo-chambers leven en of ze ook buiten hun bubbel interacteren)**
- **Wat voor dingen deel/post je vooral? Waarom? Krijg je daar reacties op? Wat voor reacties? Zijn dat mensen die je persoonlijk kent? Hebben deze mensen**

**dezelfde interesses/denkbeelden als jij?** *(om te achterhalen of de jongeren in echo-chambers leven);*

- **Op wat voor dingen reageer je vooral? Waarom? Krijg je daar reacties op? Wat voor reacties? Zijn dat mensen die je persoonlijk kent? Hebben deze mensen dezelfde interesses/denkbeelden als jij?** *(om te achterhalen of de jongeren in echo-chambers leven);*
- **Posten zij dingen die waar zijn/vind je het betrouwbaar? Zit er een mening achter de dingen die ze posten?** *(om te achterhalen of de jongeren zich bewust of onbewust in een echo-chamber bevinden)*
- **Heb je het idee dat er veel mensen zijn met dezelfde interesses/denkbeelden als jij?** *(om te achterhalen of jongeren (onbewust) in echo-chambers leven);*
- **Zie je ook wel eens iets wat volgens jou niet in jouw feed thuishoort?** *(Pijlen of jongeren de content die zij zien kritisch evalueren en er überhaupt over nadenken of iets 'past' of hoort op hun feed, dat deze inhoud wellicht gemanipuleerd is door algoritmes);*
- **Bepaal jij zelf wat je wel en niet ziet, hoe dan? Waarom doe je dat?** *(achterhalen of de jongeren zich bewust zijn van algoritmische werkingen);*
- **Hoe zorg jij dat je meer te zien krijgt van wat jij wilt zien? (Bijvoorbeeld over een onderwerp waar je vaak wat van voorbij wilt zien komen)** *(achterhalen of de jongeren zich bewust zijn van algoritmische werkingen);*
- **Hoe zorg je dat je dingen die je niet wilt zien, niet ziet? Bijv. als jij het ergens niet mee eens bent in een post of filmpje in je feed (bijvoorbeeld een mening) wat doe je dan? (reageren/disliken/doorscrollen/ontvolgen/melden)** *(achterhalen of de jongeren zich bewust zijn van algoritmische werkingen);*

**Lees vignet voor:** Een jongen van een andere school die kijkt filmpjes over auto's van een favo YouTuber, in een van zijn vlogs vertelt deze YouTuber dat hij homoseksueel is, de jongen vindt dit niet kunnen en ontvolgt deze youtuber, ook al vindt de jongen de filmpjes erg leuk om te kijken.

*(doel is niet een ethische discussie over homoseksualiteit, maar doel is om erachter te komen of jongeren actief hun bubbel bepalen)*

- **Wat vind je hiervan? Herken je dit bij jezelf of anderen?**
- **Heb jij zelf ook mensen ontvolgt? Waarom? Heb je wel eens bepaalde inhoud geblockt? Welke? en hoe?**
- **Verschilt je feed van nu met je feed van vorig jaar of een paar maanden terug/toen je net social media had? Wat voor verschillen merk je? Waarom ben je andere pagina's gaan volgen? Hoe kwam je op deze pagina's?** *(om te achterhalen of er verschil zit in gebruik, maar ook om te achterhalen hoe dit verschil is ontstaan);*



- **Gebruik je je social media op een andere manier dan vorig jaar of een paar maanden terug/toen je net social media had? Like, deel en post je bijvoorbeeld andere dingen? Ben je anders gaan reageren op bepaalde posts? Gebruik je de media actiever of minder actief?** *(om te achterhalen of er verschil zit in gebruik, maar ook om te achterhalen hoe dit verschil is ontstaan).*